IUGR, PREMATURITY AND CONGENITAL MALFORMATIONS

By

Vimla Sharma and Neeta Vijayvergiya

SUMMARY

A study of 454 cases of Low birth weight and premature babies was carried out, of which 30 babies had IUGR and 424 were premature. It was found that congenital anomalies were more common in IUGR cases (26.6%) for which etiological factors could be ascertained. Regular and proper antenatal care can significantly reduce the occurrence of such cases.

Introduction

Low birth weight babies have been studied with respect to their etiology and neonatal outcome by many workers in the past but very little work has been done to find out the relation and incidence of congenital malformations in premature and IUGR babies. Approximately 2.5% babies are born deformed and form the major cause of pregnancy Foetal Wastage and neonatal Mortality (King et al, 1982).

Material and Methods

This study was undertaken with the aim of finding out the incidence etiology of type of congenital malformations in premature and IUGR babies. 454 cases were studies from March 84 to January 85 at Zenana Hospital, Jaipur. All mothers who had delivered low birth weight babies at term or delivered prematurely were interrogated and detailed

history was taken regarding period of amenorrhoea, H/O Hypertensive disorders, Anaemia, Diabetes, Twin pregnancy and other factors. Socio-economic status was determined. General examination included recording of BP, Hb, Urine examination, Blood sugar and other relevant investigations.

Postnatal examination of the baby was carried out with special emphasis on the weight of the baby and the survival of the baby during delivery. Congenital defects were noted; B.PD and length of Femurs were recorded.

Results

Out of 454 babies, 30 were typical IUGR babies while 424 were premature babies. The etiological factors in premature babies (Table I) were abnormal presentations mainly breech presentation (13.20%),

Incompetent os (4.71%), Anaemia (10.37%), Low Socio economic status (13.20%), APH (5.18%), Twins (8.49%)

TABLE I
Causes of Prematurity

S. No.	Etiological Factor	No. of cases	Percentage
1.	Abnormal Presentation	28	13.20
2.	Incompetent os	10	4.71
3.	Unknown Etiology	45	21.22
4.	Unbooked cases	30	14.15
5.	Grand multipara	10	4.71
6.	Anaemia	22	10.37
7.	APH	11	5.18
8.	Twins	18	8.49
9.	PET and Edampsia	8	3.77
10.	TB and other diseases	2	0.64

PET and Eclampsia (3.77%) and TB and other medical disorders (0.94%). 21.22% cases were of unknown etiology and 14.15% cases were unbooked cases who reported to the hospital without any previous antenatal check up. Grand multiparas constituted 4.71% cases.

Table II depicts the factors responsible for IUGR in the present study. Hypertensive disorders constituted 53.33% of the cases, Anaemia and Low Socio economic status 40% with Rh–ve mothers contributing 6.66% of the cases.

TABLE II
Causes of IUGR

S. No.	Etiological Factor	No. of cases	(%)
1.	Hypertensive Disorders	16	53.33
2.	Anaemia and Low Socio economic factors	12	40.00
3.	Rh—ve	2	6.66

The incidence of congenital malformations was 1.87% in the premature babies group as compared to 26.6% in IUGR study group.

The incidence of still births was higher in the premature group (35.3%) whereas the IUGR group had 3.33% of still births.

The nature of malformations varied in the two groups with Talipes and Urinary Tract anomalies predominating the premature group as compared to Hydrocephalus and anencephaly in the IUGR Group.

Discussion

Analysis of the results of the present study showed that premature babies were less prone to congenital malformations (1.8%) as compared to IUGR babies (26.6%). The incidence of still births was higher in premature babies (35.33%) than the IUGR group (3.33%). It showed that IUGR babies had better survival chances.

Considering the etiological factors, IUGR is common in Hypertensive disorders, PET and PIH and Anaemia. Though these factors also lead to prema-

ture births, yet the factor of unknown etiology contributes significantly to premature births. Socio-economic status and antenatal care also plays a leading role in preventing premature onset of labour. The results of this study are in consonance with the study of Mehta, 1971.

References

1. King, C. R., Pernoll, M. L. and Presscot, G.: Obst. Gynaec. Annual, 11: 59, 1982.
2. Mehta, A.: J. Obst. Gynaec. India 24: 1, 1971.